DOCUMENT RESUME

ED 070 902 AC 014 019

AUTHOR	Lackey, L. L.; And Others
TITLE	The Effects of Command Position upon Evaluations of Leader Behavior.
INSTITUTION	Human Resources Research Organization, Alexandria, Va.
SPONS AGENCY	Office of the Chief of Research and Development (Army), Washington, D.C.
REPORT NO	HumRRO-TR-72-32
PUB DATE	Nov 72
NOTE	35p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Data Analysis; Decision Making; *Leadership; *Leadership Responsibility; Leadership Training; Military Personnel; Military Training; *Motivation; Motivation Techniques; *Officer Personnel; *Personnel Evaluation; Questionnaires; Research Methodology; Technical Reports

ABSTRACT

The study was designed to determine the effects of command position--battalion commander and company commander--upon evaluations of the desirability of certain leader actions. Twenty-two U.S. Army officers who had served as battalion commanders (Group I) and 22 who had served as company commanders (Group II) rated 36 leader actions on their desirability for battalion and for company commanders. Battalion commanders do not differentiate between the two command levels on the desirability of leader actions. Company commanders differentiate about actions concerned with the centralization of authority and responsibility and consider these to be more desirable for both command levels. Both groups rated positive motivation and emotional support as desirable and punitive or negatively motivating actions as slightly undesirable. The implications of the differences in expectations about leader behavior on effective organizational functioning, leadership doctrine, and training are discussed. (Author)

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

HumRRO

Technical Report 72-32
HumRRO-TR-72-32

ED 070902

The Effects of Command Position Upon Evaluations of Leader Behavior

L.L. Lackey, Joseph A. Olmstead,
and Harold E. Christensen

HUMAN RESOURCES RESEARCH ORGANIZATION
300 North Washington Street • Alexandria, Virginia 22314

Approved for public release; distribution unlimited.

November 1972

Prepared for

Office of the Chief of Research and Development
Department of the Army
Washington, D.C. 20310

AD014019

Destroy this report when it is no longer needed.
Do not return it to the originator.

HumRRO
Technical
Report
72-32

The Effects of Command Position Upon Evaluations of Leader Behavior

L.L. Lackey, Joseph A. Olmstead,
and Harold E. Christensen

HumRRO Division No. 4
Fort Benning, Georgia
HUMAN RESOURCES RESEARCH ORGANIZATION

Work Unit FORGE

November 1972

Approved for
public release;
distribution
unlimited.

Prepared for

Office of the Chief of Research and Development
Department of the Army
Washington, D.C. 20310

The Human Resources Research Organization (HumRRO) is a nonprofit corporation established in 1969 to conduct research in the field of training and education. It is a continuation of The George Washington University Human Resources Research Office. HumRRO's general purpose is to improve human performance, particularly in organizational settings, through behavioral and social science research, development, and consultation. HumRRO's mission in work performed under contract with the Department of the Army is to conduct research in the fields of training, motivation, and leadership.

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Published
November 1972
by
HUMAN RESOURCES RESEARCH ORGANIZATION
300 North Washington Street
Alexandria, Virginia 22314

Distributed under the authority of the
Chief of Research and Development
Department of the Army
Washington, D.C. 20310

FOREWORD

The primary purpose of the research described in this report was to determine the effects of command position upon judged desirability of certain empirically derived leader actions for battalion commanders and company commanders. An additional purpose was to identify differences between the two command levels in terms of desirability of the actions for incumbents of the positions.

The report describes the results of a further analysis of data collected in a study by Major James I. Muir in support of Work Unit FORGE, Factors in Military Organizational Effectiveness, a research project conducted by the Human Resources Research Organization. The study was in partial fulfillment of requirements for completion of the Human Factors Elective of the Infantry Officers Advanced Course, U.S. Army Infantry School. The questionnaire used in the study was developed by Major Allen Pasco, also in partial fulfillment of requirements for the Human Factors Elective.

The study was supervised under Technical Advisory Service by HumRRO Division No. 4 at Fort Benning, Georgia. Further analysis of the data was carried out under Work Unit FORGE. Dr. T.O. Jacobs is Director of the Division and Dr. J.A. Olmstead is FORGE Work Unit Leader.

Military liaison and support were provided by the U.S. Army Infantry Human Research Unit. LTC Chester I. Christie was Unit Chief when this research was conducted and LTC Willys E. Savis is the current Chief.

HumRRO research for Department of the Army is conducted under Contract DAHC 19-73-0004. Basic Research in Military Group Effectiveness is performed under Army Project 2Q061102B74B.

Meredith P. Crawford
President
Human Resources Research Organization

SUMMARY AND CONCLUSIONS

MILTARY PROBLEM

The effectiveness of a military organization depends upon the mutually complementary activities of its personnel. However, a serious impediment to effectiveness can arise when individuals who occupy different command levels possess conflicting views concerning the leadership behavior appropriate for their respective roles.

Such differences in viewpoint are frequently reported, but neither the precise nature of the differences nor their sources have been identified previously. Specific knowledge concerning such differences, their nature, and their origins would provide useful bases for leadership doctrine and training.

RESEARCH PROBLEM

The purpose of the study was to determine the effects of occupancy of two command positions—battalion commander and company commander—upon evaluations of desirability of certain common leader actions for incumbents of the two positions. An additional objective was to determine whether experienced officers judge the actions to be differentially desirable for the two positions.

METHOD

Two groups of U.S. Army officers completed a questionnaire on which respondents were required to judge 36 leader actions in terms of their desirability for battalion commanders and for company commanders. The officers were classified according to command experience. Group I consisted of 22 staff members of the U.S. Army Infantry School who had recently served as battalion commanders. Group II consisted of 22 student officers in the Advanced Course of the Infantry School who had recently served as company commanders.

For purposes of analysis, each of the leader actions was assigned to one of four "functional areas" according to a modification of Bales' category system for interaction process analysis. The functional areas were as follows:

(1) Task Centralized Actions, those actions concerned with the mission or task which center authority or responsibility in the leader.
(2) Task Decentralized Action, those actions concerned with the mission or task which decentralize authority or responsibility to subordinates.
(3) Social-Emotional Positive Actions, those actions that principally affect the interpersonal, emotional, and motivational relations of the leader with other personnel and that are usually interpreted as positive or rewarding.
(4) Social-Emotional Negative Actions, those actions that principally affect the interpersonal, emotional, and motivational relations of the leader with other personnel and are usually interpreted as negative or punishing.

Ratings by the two officer groups of the desirability of the leader actions for each of two "levels of command" (battalion commander and company commander) were compared on the basis of functional area scores through the use of analysis-of-variance procedures.

PRINCIPAL RESULTS

(1) A significant interaction was found between command experience, rated level of command, and functional area, indicating that battalion commanders and company commanders rated leader actions differently for the two levels within certain functional areas.

(2) Within each functional area, ratings by battalion commanders indicated no differences between levels of command in desirability of leadership actions.

(3) Task Centralized actions were judged by company commanders to be more desirable for company commanders than for battalion commanders.

(4) Company commanders rated Task Decentralized actions as more desirable for a battalion commander than did battalion commanders.

(5) Company commanders rated Task Decentralized actions as more desirable for a company commander than did battalion commanders.

(6) For combined command levels and groups, Task Decentralized and Social-Emotional Positive actions were rated as more desirable than other functional areas.

(7) For combined command levels and groups, Social-Emotional Negative actions were judged least desirable among the functional areas.

(8) Within the Social-Emotional Positive and Social-Emotional Negative areas, each group rated such actions as equally desirable for both levels of command.

(9) No category of leader actions was judged by either experience group to be desirable for one command level but undesirable for the other.

CONCLUSIONS

(1) Command position influences the evaluations of officers with regard to certain leader actions. This conclusion is compatible with a finding of the U.S. Army War College Study of Leadership for the Professional Soldier that perception of the relative importance and desirability of leadership actions varies among grade levels.

(2) Battalion commanders do not differentiate between command levels as to the desirability of leader actions. Company commanders differentiate between command levels with regard to actions concerned with centralization of authority and responsibility.

(3) Company commanders consider decentralized actions to be more desirable for both battalion commanders and company commanders than do battalion commanders.

(4) Both battalion commanders and company commanders consider positively motivating actions to be highly desirable for both command levels and punitive or threatening actions to be slightly undesirable for both levels.

(5) The results represent the best judgments of experienced battalion commanders and company commanders, and, accordingly, warrant consideration by leaders and designers of leadership training.

(6) The small number of individuals included in the sample suggests the necessity for caution in generalizing the results to the total officer population. Furthermore, since the study was limited to Infantry officers, caution should be exercised in generalizing the results to the technical services.

CONTENTS

		Page
Introduction		3
	Military Problem	3
	Background	3
	Research Problem	4
Method		4
	Participants	4
	Data Collection	4
	Development of the Questionnaire	5
	Format	6
	Analysis	6
Results		7
Discussion		11
References		17
Appendices		
A	Research Questionnaire	19
B	Comparison of Functional Area Scores for Rated Level of Command by Command Experience Group	23
Figure		
1	Effects of Command Experience Upon Desirability Scores	10
Tables		
1	Characteristics of Subjects	5
2	Comparison of Functional Area Scores	7
3	Analysis of Variance for Functional Area Scores	8
4	Summary of Analysis of Variance for Simple Effects Associated With the Rated Level of Command x Functional Area Interaction	8
5	Summary of Analysis of Variance for Simple Effects Associated With Interaction Between Command Experience, Rated Level of Command, and Functional Area	9

The Effects of Command Position Upon Evaluations of Leader Behavior

INTRODUCTION

MILITARY PROBLEM

A military organization is a complex system and its effectiveness depends upon the mutually complementary activities of all personnel. An especially serious impediment to effectiveness can arise when individuals who occupy different command levels possess conflicting views of their roles. Such differences may result in blocked communication, duplication of effort, errors of omission and commission, and, in some instances, outright antagonism between individuals who occupy critical leadership positions.

Because conflicting views concerning the execution of leadership functions may lead to problems, a battalion commander may encounter difficulty in obtaining precisely the performance he desires from a company commander if his views and his subordinate's views of their leadership responsibilities differ. From a different perspective, a company commander may feel restricted in the execution of his duties according to his own best judgment, because his concept of leadership differs from that of his battalion commander.

Differences in viewpoint concerning leadership are frequently reported, but neither the precise nature of the differences nor their sources have been previously identified. Accordingly, specific knowledge concerning such differences, their nature, and their sources would provide useful inputs for leadership doctrine and training.

BACKGROUND

Differences in viewpoints concerning desirable leadership behavior may be due to simple variation between individuals. However, there is considerable evidence that the role a person occupies is a more influential determinant of his view of leadership, and that perspectives change as he moves through the chain of command (1). It appears that individuals who occupy the same levels within an organization will develop somewhat uniform conceptions about leadership, and these ideas may be different from those held by personnel at either higher or lower levels (2, 3). Thus, an individual may possess one concept of leadership as a company commander, but service as a battalion commander can result in some modification of his views concerning desirable leadership behavior for both a company commander and a battalion commander.

The effects of such differences in role perceptions have been documented (4, 2, 5). One common difficulty is the overt conflict between superior and subordinate that may arise because of differing perceptions of the proper role for the subordinate. A more complex problem is the internal conflict that may be experienced by a subordinate who is aware that his view of how he should lead differs from his superior's expectations concerning his leadership actions. A similar conflict may be experienced by a superior officer if he becomes aware that his convictions about how he should lead contradict a subordinate's image of desirable leadership by superiors.

It is apparent that occupancy of different organizational levels may result in differing views of desirable leadership behavior, and that these views can cause serious problems which may impede effectiveness.

RESEARCH PROBLEM

The purpose of this study was to identify differences, if any, between the judgments of battalion commanders and company commanders concerning the desirability of certain common leader actions for both battalion commanders and company commanders. Specifically, the study was designed to answer the following questions:

(1) Do battalion commanders and company commanders differ in their evaluations of the desirability of certain common leader actions for battalion commanders?
(2) Do they differ in their evaluations of the desirability of the same actions for company commanders?
(3) Do battalion commanders and company commanders judge the actions to be equally desirable for both?
(4) If differences are found in connection with Questions 1, 2, or 3, what kinds of leader actions are involved?

METHOD

The study was designed to allow a comparison between the judgments of former battalion or brigade commanders and those of former company commanders concerning the desirability of a number of leader actions for battalion and company commanders.

PARTICIPANTS

Two groups of U.S. Army officers participated in the study, which was conducted at Fort Benning, Georgia. One group was composed of former brigade or battalion commanders; the other group consisted of former company commanders. The 44 participants had acquired their command experience during service in the Republic of Vietnam.

Contingent upon their level of command experience, participants were placed in Group I or Group II. Group I was composed of 22 officers, of whom 19 had commanded battalions, one had commanded a brigade but not a battalion, and two had commanded brigades and battalion-equivalent units (U.S. Special Forces C Detachment Commander and Battle Group Deputy Commander). In the remainder of the report, this group will be referred to as "battalion commanders." Group II consisted of 22 officers whose most recent command experience was that of company commander. Characteristics of the two groups are presented in Table 1.

At the time of the study, all participants were assigned to Fort Benning. The former company commanders were students in the Infantry Officers Advanced Course, U.S. Army Infantry School (USAIS), and the former "battalion commanders" were members of the staff of the Infantry School.

DATA COLLECTION

Comparisons between the two groups were made on the basis of responses to a questionnaire dealing with ratings of desirability of various types of leader behavior. The respondents were given the questionnaire and asked to return it after completion. The questionnaire was designed to elicit ratings of actual leader actions and to permit analyses of scores for functional areas.

Table 1

Characteristics of Subjects

Descriptors	Group I	Group II
Rank		
COL	8	--
LTC	14	--
MAJ	--	2
CPT	--	20
Mean military experience (years)	20.6	7.2
Mean age (years)	41.8	28.3
Education		
High school	--	1
1-3 years college	1	3
4 years college	11	17
Graduate work	10	1

Development of the Questionnaire

The objective was to develop a questionnaire that would be relevant for military personnel and would be conceptually sound. To obtain a pool of relevant items, 180 members of Infantry Officer Advanced Class No. 68-1 (USAIS) were asked to list 10 behaviors that are frequently exhibited by battalion commanders, battalion staff officers, and company commanders, and to rank the behaviors in order of desirability. The behavior descriptions thus obtained provided a pool of genuine leader actions from which items could be selected for inclusion in the questionnaire.

Bales' (6) categories for interaction process analysis served as the conceptual basis for item selection. Bales devised 12 categories that encompass most of the behavior exhibited by group members during problem-solving interaction. These categories, in turn, are grouped into four broad functional areas: (a) Task-Oriented Questions, (b) Task-Oriented Answers, (c) Social-Emotional Positive Reactions, and (d) Social-Emotional Negative Reactions.

For this study, the Bales system was adapted for a military context. Leader actions relevant to each of Bales' 12 categories were selected from the item pool. To make them more appropriate in a military operational context, two of the Bales functional areas were renamed. In the questionnaire used in the study described here, items can be grouped into four functional areas:

(1) Task Centralized Actions (TC). Those actions that are mainly concerned with the mission, task, or work and that serve to increase personal control of the leader or to otherwise center authority or responsibility in the command level being evaluated.

(2) Task Decentralized Actions (TD). Those actions that are mainly concerned with the mission, task, or work and that serve to decentralize authority and responsibility or to otherwise increase the contributions of subordinates.

(3) Social-Emotional Positive Actions (SE+). Those actions that principally affect the interpersonal, emotional, and motivational relations of the leader with other personnel (superiors, peers, subordinates) and that are usually interpreted as positive or rewarding.

(4) Social-Emotional Negative Actions (SE−). Those actions that principally affect the interpersonal, emotional, and motivational relations of the leader with other personnel (superiors, peers, subordinates) and that are usually interpreted as negative or punishing.

Items were randomly distributed within the questionnaire and were not identified as related to any functional area. However, such classification permits recovery of data by area, and computation of area scores makes it possible to compare desirability of actions according to the function served.

Forty-five leader actions were selected for inclusion. The questionnaire was then administered to 160 members of the Infantry Officer Advanced Course Class No. 68-2 (USAIS). The respondents were required to rate the desirability of each item for battalion commanders and company commanders on a six-point scale (described below). The responses were analyzed and each item was evaluated for reliability, clarity, and content validity. After faulty items were discarded, 36 descriptions of leader actions were retained.

Thus, the items contained in the questionnaire were descriptive of actual leader actions as provided by experienced officers, they were selected on the basis of an extensively tested conceptual framework, and both the items and the response procedure were pretested with subjects similar to many of those who participated in this study.

Format

The questionnaire is shown in Appendix A. The respondents were required to judge each of the 36 leader actions in terms of its desirability for each of two command levels—battalion commanders and company commanders. They rated each action by recording a number indicating degree of desirability in a blank space next to each of the command levels listed below the action description. The desirability scale and the values corresponding to each alternative were:

Very Undesirable	1
Undesirable	2
Slightly Undesirable	3
Slightly Desirable	4
Desirable	5
Very Desirable	6

The scale forces respondents to record a definite positive (desirable) or negative (undesirable) response for each item. Neutral or undecided responses were not permitted. This procedure was used to forestall a frequently noted tendency to over-respond in the central area of a scale when a mid-point alternative is provided.

The questionnaire included a cover sheet on which respondents recorded personal data—rank, age, length of commissioned service, education, and military experience according to position and time served in position under both combat and noncombat situations. This information was needed to provide data concerning characteristics of the sample surveyed and for the classification necessary for comparisons between levels of command experience. Respondents were not required to identify themselves.

ANALYSIS

Data were available concerning the desirability of leader actions for battalion commanders and company commanders, as rated by former "battalion commanders" and former company commanders.

An item score is the desirability value assigned to an action for a particular command level. Therefore, within each group, two scores for each action were available

for analysis. Functional area scores were also computed for each rated command level. Appendix B presents the classification of questionnaire items by functional area.

Functional Area Scores. Within each command level, a score for a functional area is the group's mean of item scores for all actions subsumed under that area. The use of means was necessary for comparisons between functional areas, because numbers of items within areas were not equal.

Group Comparisons. The study was designed to provide comparisons of command-level functional area scores between two groups of subjects who differed according to command experience. The main analysis involved the use of analysis-of-variance procedures for repeated measures (7) in a 2 x 2 x 4 (Command Experience x Rated Level of Command x Functional Area) design. This method permits analysis of the effects of command experience upon desirability ratings for each command level and each functional area. Where significant interaction was found, simple main-effects tests (8) were used to identify sources of interaction.

RESULTS

The means and standard deviations of ratings by the two groups for each leader action according to rated levels of command are shown in Appendix B. The results discussed in this section are concerned with group comparisons of functional area scores; ratings given to specific actions may be ascertained from Appendix B.

A comparison of group functional area scores is shown in Table 2 and results of the principal analysis of variance are shown in Table 3. No significant differences were found between levels of command experience when this variable was considered alone. On the other hand, significant differences were found between Rated Level of Command and between Functional Areas.

Table 2

Comparison of Functional Area Scores

Command Experience	Rated Level of Command	Functional Area							
		Task Centralized		Task Decentralized		Social-Emotional Positive		Social-Emotional Negative	
		M	SD	M	SD	M	SD	M	SD
Bn CO	Bn CO	4.06	.67	4.41	.98	4.76	.89	3.09	.86
	Co CO	4.29	.85	4.25	.90	4.80	.91	3.19	.79
Co CO	Bn CO	4.09	.57	4.97	.53	4.69	.41	3.35	.68
	Co CO	4.50	.60	4.71	.51	4.89	.40	3.35	.73
Total		4.23	.70	4.59	.81	4.78	.70	3.24	.78

Significant interaction occurred between Rated Level of Command and Functional Area and between Command Experience, Rated Level of Command, and Functional Areas. These significant interactions indicate that levels of command were rated differently for the several functional areas, and that judgments of former battalion commanders and company commanders were different for Rated Level of Command in at least some functional areas.

Table 3

Analysis of Variance for Functional Area Scores

Sources	*df*	MS	*F*	*p*
Between Subjects	43			
A (Command Experience)	1	4.03	1.52	NS
Subjects within groups	42	2.66		
Within Subjects	308			
B (Rated Levels of Command)	1	.40	8.00	<.01
AB	1	.00	<1	NS
BxSubjects within groups	42	.05		
C (Functional Areas)	3	41.19	76.28	<.01
AC	3	1.02	1.89	NS
CxSubjects within groups	126	.54		
BC	3	1.06	24.65	<.01
ABC	3	.16	3.72	<.05
BCxSubjects within groups	126	.043		

Because of the significant interactions, direct interpretation of the main effects was not feasible. In order to identify the sources of differences within the different levels of each variable, significant interactions were analyzed further by tests of simple effects (8). Table 4 shows the simple effects test performed in further analysis of the significant BC interaction (Rated Level of Command x Functional Area).

Table 4

Summary of Analysis of Variance for Simple Effects Associated With the Rated Level of Command x Functional Area Interaction

Source	*df*	MS	*F*	*p*
Test for simple effects of Rated Level of Command for Functional Areas.				
Functional Area TC	1	2.23	49.56	<.01
Functional Area TD	1	1.00	22.22	<.01
Functional Area SE+	1	.31	6.89	<.01
Functional Area SE−	1	.05	1.11	NS
Error B+BC	168	.045		
Test for simple effects of Functional Area for Rated Level of Command.				
Bn CO	3	20.37	70.24	<.01
Co CO	3	21.89	75.48	<.01
Error C+BC	252	.29		

When judgments of the two experience groups are pooled, results of the simple effects test show that the company commander position received significantly higher ratings than the battalion commander position for both TC and SE+ actions. For the TD functional area, it was judged significantly more desirable for a battalion commander to display this type of behavior than for a company commander to do so. Furthermore, differences between functional areas occurred within each rated level of command. However, these results must be qualified by the additional analysis of the significant ABC interaction

Table 5 shows the results of the simple effects test performed in further analysis of the significant ABC interaction (Command Experience x Rated Level of

Table 5

Summary of Analysis of Variance for Simple Effects Associated With Interaction Between Command Experience, Rated Level of Command, and Functional Area

Source	*df*	MS	*F*	*p*
Test for simple effects of Command Experience on Rated Level of Command for Functional Areas				
Bn CO for Functional Area TC	1	.50	<1	NS
BN CO for Functional Area TD	1	2.41	4.30	<.05
Co CO for Functional Area TC	1	.01	<1	NS
Co CO for Functional Area TD	1	3.44	6.14	<.05
Bn CO for Functional Area SE+	1	.10	<1	NS
Bn CO for Functional Area SE−	1	.27	<1	NS
Co CO for Functional Area SE+	1	.06	<1	NS
Co CO for Functional Area SE−	1	.79	1.41	NS
Error within cell	336	.56		
Test for Command Experience x Rated Level of Command Interaction for Functional Areas				
Functional Area TC	1	.20	4.44	<.05
Functional Area TD	1	.05	1.11	NS
Functional Area SE+	1	.17	3.78	NS
Functional Area SE−	1	.07	1.56	NS
Error AB+ABC	168	.045		
Test for Command Experience x Functional Area Interaction for Rated Level of Command				
Bn CO	3	.29	1.00	NS
Co CO	3	.89	3.07	NS
Error AC+ABC	252	.29		
Test for Functional Area x Rated Level of Command Interaction for Command Experience				
Former Bn COs	3	.91	21.16	<.01
Former Co COs	3	.30	6.98	<.01
Error BCxSs within groups	126	.043		

Effects of Command Experience Upon Desirability Scores

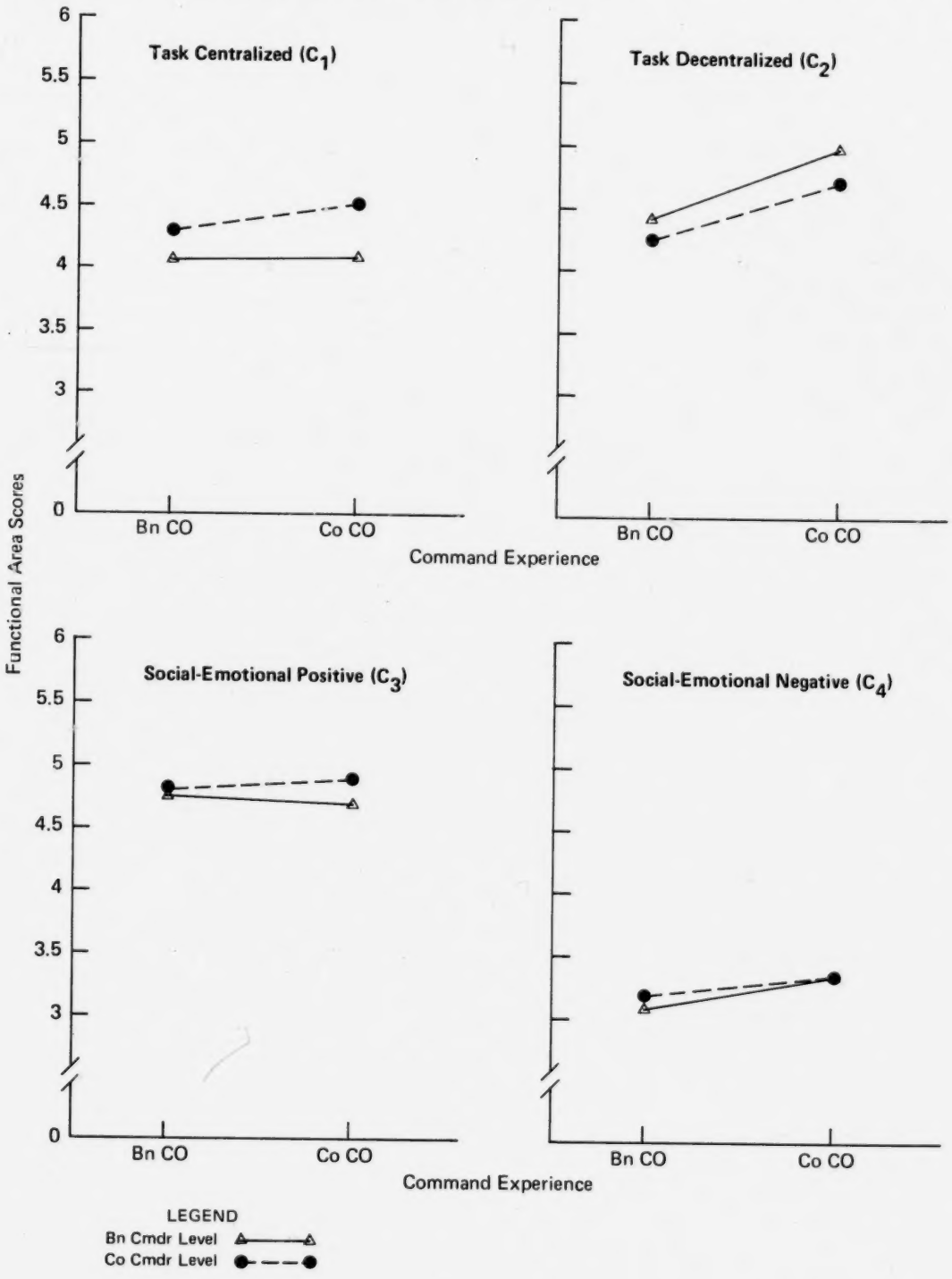

Figure 1

Command x Functional Area). For assistance in interpretation of Table 5, Figure 1 illustrates the scores for each functional area according to rated level of command and experience of the raters.

From the section of Table 5 that shows the test for simple effects of command experience upon ratings assigned the two levels of command for each functional area, two significant results can be noted. The first is concerned with the effects of command experience upon ratings given the battalion commander position for Task Decentralized actions ($F = 4.30$, $p < .05$) and indicates a difference between the command experience groups in judging the desirability of leader actions that serve to decentralize authority and responsibility. Reference to Figure 1 shows that former company commanders assigned higher desirability ratings than former battalion commanders to decentralized actions for battalion commanders. The second result indicates a significant effect of command experience upon the desirability of Task Decentralized actions for company commanders ($F = 6.14$, $p < .05$). Figure 1 shows that former company commanders rated these actions more desirable for company commanders than did former battalion commanders.

In that section of Table 5 covering the test for interaction between command experience and rated level of command for each functional area, a significant result is shown only for Task Centralized actions ($F = 4.44$, $p < .05$). From Figure 1 and Table 2, it can be concluded that former battalion commanders consider these actions equally desirable for both levels, whereas former company commanders judge them to be more desirable for company commanders. Both former battalion commanders and company commanders consider TC actions about equally desirable for battalion commanders. Of special significance here is the fact that former battalion commanders did not discriminate between command levels within any functional area. The noted difference for Task Centralized actions is due solely to the differential judgments of former company commanders.

The last section of Table 5 shows that interaction between functional area and rated level of command was significant for both command-experience groups. These results indicate that scores for each level of command varied, according to functional area, for each command-experience group considered separately.

DISCUSSION

The principal purpose of this study was to determine whether individuals who occupy two levels of command within a battalion differ in their views concerning the desirability of leadership actions for incumbents of the two positions. The discussion to follow will be addressed to this issue and its implications. It should be noted that mean ratings for each of the leader actions included in the questionnaire are shown in Appendix B. Reference to these data will provide information concerning the desirability or undesirability of any specific action, as judged by experienced officers.

The results of this study indicate that company commanders do, in fact, differ from battalion commanders in their evaluations of leader actions; however, the differences are localized within certain specific types of behavior and, mainly, are due to greater differentiation between levels by company commanders. Principal differences were found in evaluations of leader actions concerned with the assignment and supervision of missions, tasks, or work (Task Centralized and Task Decentralized Actions). Thus, company commanders judge it to be more desirable for both levels to decentralize authority and responsibility than do battalion commanders. Because battalion commanders consider Task Decentralized actions to be somewhat more than "slightly

desirable" for both command levels, ratings of these actions by company commanders were significantly higher and approached "desirable" for both levels.

On the other hand, both company commanders and battalion commanders judge the centralization of authority and responsibility to be only "slightly desirable" for battalion commanders. In addition, battalion commanders judge these actions to be no more desirable for company commanders than for themselves; company commanders, however, consider centralized actions significantly more desirable for themselves than for battalion commanders.

Both company commanders and battalion commanders consider positively motivating and rewarding actions (SE+) to be equally "highly desirable" for both levels of command. Both groups also judge punitive and negatively motivating actions (SE−) to be "slightly undesirable" for the two levels. Battalion commanders and company commanders do not differ in their evaluations of positive and negative motivating actions, and neither group differentiates between levels of command with regard to these actions.

Probably the most significant result of this study is the finding that battalion commanders do not differentiate between desirability of leader actions for the two command levels within any of the functional areas, whereas company commanders make such differentiations with regard to actions concerned with task or mission accomplishment and supervision of work. Apparently battalion commanders hold to the frequently cited concept which states that "leadership is the same for all levels, but the problems become more complex as one moves up the chain of command." On the other hand, company commanders see some genuine differences between the two levels with regard to the centralization of responsibility and extent of detailed supervision of operations.

The principal source of differences lies in the stronger advocacy by company commanders of decentralization and, what is more, of increasing decentralization as one moves up the chain of command. These differences could be attributed to many causes—the greater experience of battalion commanders coupled with their having been exposed to the problems of both levels, the broader perspective resulting from the command of a battalion, the reaction of company commanders against what is perceived as excessive control by higher levels, or the more recent exposure of the company commanders to instruction in current doctrine that advocates decentralization. However, reasons for the differences, while relevant, do not alter the fact that occupancy of different positions in a battalion is accompanied by corresponding differences in perceptions of roles and responsibilities.

The results of this study are compatible with findings of the U.S. Army War College Study of Leadership for the Professional Soldier (9). In the War College study, differences between grade levels were found in perceptions of relative importance and desirability of various leadership actions. From the results of these two studies, it is apparent that the perspective of organizational position influences perceptions of leadership behavior and, therefore, determines the ways in which such behavior will be evaluated by both superiors and subordinates.

Several implications are suggested by the results. First, the data are the pooled opinions of experienced officers who have recently served under current combat conditions, in the positions of battalion commander and company commander, respectively. The noted differences between the two groups of officers have significance for the effectiveness of battalion operations. It would appear that the effectiveness of leaders at both levels might be improved, or at least their problems might be simplified, if leadership training included instruction concerning potential differences in viewpoints between the levels.

The second implication is concerned with leading company commanders like those represented by the sample used in this study. Leaders are most effective in influencing subordinates when the views of superior and subordinate agree concerning their respective

leadership roles (5, 10). Differences such as those noted in this report are potential impediments to such effectiveness; accordingly, where possible, the differences should be clarified and resolved. If this resolution is not achieved, the minimum requirement is that the subordinate clearly understand his commander's concept of both leadership roles. Thus, even if the subordinate does not entirely agree with his commander's concept, he will have no doubts concerning the commander's expectations of him and will also be able to predict the superior's actions with a reasonable degree of accuracy.

Effective performance of leadership roles comes about through understanding, and the effects of differences such as those noted in this report can be resolved, or at least minimized, when superior officers take the initiative to establish communication concerning leadership activities with subordinates. Subordinates are usually reluctant to initiate resolution of differences or clarification of role expectations, so if such actions are to occur, the initiative will usually fall to the superior in the relationship. Because role relationships develop best when they have a good beginning, effectiveness will be enhanced if the superior makes himself sensitive, at an early stage, to the problem of his relationship with subordinates. It also will be helpful if he knows clearly what leadership roles he perceives for his subordinates and for himself, because he can then anticipate any incompatibilities that may arise. Finally, it is important that he carefully and clearly communicate his views to his subordinates and, furthermore, that he ensures that his subordinates understand what he intends their leadership roles to be.

A final implication is that the results confirm the value of a research-based approach for understanding military leadership. They demonstrate that it is possible to identify in concrete terms specific sources of potential leadership problems and to determine directions for improved training and application.

REFERENCES
AND
APPENDICES

REFERENCES

1. Lieberman, S. "The Effects of Changes in Roles on the Attitudes of Role Occupants," *Human Relations*, vol. 9, 1956, pp. 385-402.

2. Karcher, E. K., Jr. *The First Sergeant in the United States Air Force: A Perceptual Component Approach to the Analysis of Leadership and Organizational Position*, Technical Report Number 7, AF-HRRI, Project No. 505-037-0001, Institute for Research in Social Science, University of North Carolina, Chapel Hill, 1952.

3. Berry, N. H., Nelson, P. D., and McNally, M. S. "A Note on Supervisor Ratings," *Personnel Psychology*, vol. 19, no. 4, 1966, pp. 423-426.

4. Halpin, A. W. "The Leadership Behavior and Combat Performance of Airplane Commanders," *Journal of Abnormal and Social Psychology*, vol. 49, 1954, pp. 19-22.

5. Scott, E. L. *Perceptions of Organization and Leadership Behavior*, Ohio State University Research Foundation, Columbus, Ohio, 1952.

6. Bales, R. F. "A Set of Categories for the Analysis of Small-Group Interaction," *American Sociological Review*, vol. 15, 1950, pp. 146-149.

7. Winer, B. J. *Statistical Principles in Experimental Design*, McGraw-Hill, New York, 1962.

8. Kirk, R. E. *Experimental Design: Procedures for the Behavioral Sciences*, Wadsworth, Belmont, California, 1969.

9. U.S. Army War College. *Leadership for the 1970's: USAWC Study of Leadership for the Professional Soldier*, Comprehensive Report, U.S. Army War College, Carlisle Barracks, Pa., October 1971.

10. Stogdill, R.M. and Kochler, K. *Measures of Leadership Structure and Organizational Change*, Ohio State University Research Foundation, Columbus, Ohio, 1952.

Appendix A

RESEARCH QUESTIONNAIRE

Purpose: The purpose of this questionnaire is to determine the desirability of particular leadership behaviors in Battalion and Company Commanders.

Personal Data

1. Rank _____.
2. Age _____.
3. Length of service _____ yrs.
4. Education:
   a. High School _____ yrs.
   b. College _____ yrs.
   c. Graduate School _____ yrs.
5. Experience: Indicate type and length of experience by writing in the appropriate blanks the length of time that you have served in each position.

	Combat	Noncombat
Battalion Commander	_____	_____
Battalion XO	_____	_____
Battalion Staff Officer	_____	_____
Company Commander	_____	_____
Platoon Leader	_____	_____

NOTE: This questionnaire is an anonymous survey of opinions, i.e., respondents will not be identified in any way by name. There are no right or wrong answers. Please answer frankly, based on your personal opinion and experience.

INSTRUCTIONS

Please rate each of the actions described below for its desirability in a Battalion Commander and for its desirability in a Company Commander, according to the following scale:

1. Very undesirable
2. Undesirable
3. Slightly undesirable
4. Slightly desirable
5. Desirable
6. Very desirable

Rate each action by placing a number indicating its degree of desirability (based on the rating scale given above) for a Battalion Commander and for a Company Commander in the blank space next to each position.

ACTIONS TO BE RATED

1. Often stresses formality in his relationships with subordinates.
   Battalion Commander _____
   Company Commander _____
2. Is often primarily concerned with the men's safety and welfare.
   Battalion Commander _____
   Company Commander _____
3. Often places the mission ahead of men's safety and welfare.
   Battalion Commander _____
   Company Commander _____
4. Frequently maintains informal relations with subordinates.
   Battalion Commander _____
   Company Commander _____
5. Frequently coordinates work of subordinate officers.
   Battalion Commander _____
   Company Commander _____
6. Frequently lets subordinates make their decisions about how to carry out the missions he assigns them.
   Battalion Commander _____
   Company Commander _____
7. Is often antagonistic and aggressive toward subordinates.
   Battalion Commander _____
   Company Commander _____
8. Frequently helps subordinate officers in personal matters.
   Battalion Commander _____
   Company Commander _____
9. Often reprimands subordinates for lack of effort.
   Battalion Commander _____
   Company Commander _____
10. Frequently appears irritated.
    Battalion Commander _____
    Company Commander _____

1. Very undesirable
2. Undesirable
3. Slightly undesirable
4. Slightly desirable
5. Desirable
6. Very desirable

ACTIONS TO BE RATED

11. Makes few decisions without consulting subordinate officers.
    Battalion Commander _____
    Company Commander _____
12. Often appeals for good performance.
    Battalion Commander _____
    Company Commander _____
13. Often asks subordinate officers for suggestions.
    Battalion Commander _____
    Company Commander _____
14. Often warns subordinates against poor performance.
    Battalion Commander _____
    Company Commander _____
15. Often agrees with subordinate officers' ideas and suggestions.
    Battalion Commander _____
    Company Commander _____
16. Is often accessible to subordinates.
    Battalion Commander _____
    Company Commander _____
17. Makes most decisions without consulting subordinate officers.
    Battalion Commander _____
    Company Commander _____
18. Often agrees with fellow officers' ideas and suggestions.
    Battalion Commander _____
    Company Commander _____
19. Frequently provides information about the task or mission.
    Battalion Commander _____
    Company Commander _____
20. Closely supervises every detail of missions he assigns.
    Battalion Commander _____
    Company Commander _____
21. Often displays a sense of humor.
    Battalion Commander _____
    Company Commander _____
22. Frequently suggests ways to accomplish mission.
    Battalion Commander _____
    Company Commander _____
23. Often rewards and praises subordinates for their accomplishments.
    Battalion Commander _____
    Company Commander _____

1. Very undesirable
2. Undesirable
3. Slightly undesirable
4. Slightly desirable
5. Desirable
6. Very desirable

ACTIONS TO BE RATED

24. Often rewards and praises subordinates for their efforts.
    Battalion Commander _____
    Company Commander _____
25. Often disagrees with fellow officers' ideas and suggestions.
    Battalion Commander _____
    Company Commander _____
26. Frequently checks on every step of subordinates' execution of assignments.
    Battalion Commander _____
    Company Commander _____
27. Often explains or gives reasons why things should be done.
    Battalion Commander _____
    Company Commander _____
28. Often asks for opinions of subordinates.
    Battalion Commander _____
    Company Commander _____
29. Frequently checks on mission accomplishment rather than on each step of its execution.
    Battalion Commander _____
    Company Commander _____
30. Often reprimands subordinates for inadequate accomplishment.
    Battalion Commander _____
    Company Commander _____
31. Often gives opinion to subordinates.
    Battalion Commander _____
    Company Commander _____
32. Frequently disagrees with subordinate officers' ideas and suggestions.
    Battalion Commander _____
    Company Commander _____
33. Frequently seeks information from subordinate officers about the task or mission.
    Battalion Commander _____
    Company Commander _____
34. Often disagrees with senior officers' ideas and suggestions.
    Battalion Commander _____
    Company Commander _____
35. Often indicates what performance is expected of subordinates.
    Battalion Commander _____
    Company Commander _____
36. Often agrees with senior officers' ideas and suggestions.
    Battalion Commander _____
    Company Commander _____

Appendix B

COMPARISON OF FUNCTIONAL AREA SCORES FOR RATED LEVEL OF COMMAND BY COMMAND EXPERIENCE GROUP

Leader Actions (Within Functional Areas)[a]	Rated Level of Command	Command Experience			
		Battalion Commander		Company Commander	
		Mean	SD	Mean	SD
Task Centralized (TC)					
Frequently coordinates work of subordinate officers (5).	Bn CO	4.0	1.6	4.1	1.3
	Co CO	4.5	1.8	5.1	.9
Makes most decisions without consulting subordinate officers (17).	Bn CO	3.0	1.2	2.2	.7
	Co CO	3.3	1.3	2.8	1.0
Frequently provides information about the task or mission (19).	Bn CO	5.5	1.4	5.6	.6
	Co CO	5.4	1.4	5.7	.5
Closely supervises every detail of missions he assigns (20).	Bn CO	3.4	1.6	3.5	1.5
	Co CO	3.8	1.8	4.2	1.4
Frequently suggests ways to accomplish mission (22).	Bn CO	4.4	1.2	4.7	.9
	Co CO	4.5	1.3	4.9	.8
Frequently checks on every step of subordinates' execution of assignments (26).	Bn CO	2.6	1.4	2.6	1.1
	Co CO	3.1	1.4	3.3	1.4
Often gives opinion to subordinates (31).	Bn CO	4.6	1.0	4.2	1.1
	Co CO	4.6	1.1	4.3	1.3
Often indicates what performance is expected of subordinates (35).	Bn CO	4.9	1.4	5.5	.6
	Co CO	5.0	1.3	5.7	.6
Task Decentralized (TD)					
Frequently lets subordinates make their decisions about how to carry out the missions he assigns them (6).	Bn CO	4.7	1.9	5.6	.9
	Co CO	4.3	1.8	5.2	.9
Makes few decisions without consulting subordinate officers (11).	Bn CO	3.1	1.5	4.2	1.5
	Co CO	3.0	1.5	4.3	1.1
Often asks subordinate officers for suggestions (13).	Bn CO	4.7	1.4	5.1	.8
	Co CO	4.5	1.3	4.9	.8
Often asks for opinions of subordinates (28).	Bn CO	4.5	1.5	5.2	.6
	Co CO	4.5	1.5	5.0	.7

(Continued)

Leader Actions (Within Functional Areas)[a]	Rated Level of Command	Command Experience			
		Battalion Commander		Company Commander	
		Mean	SD	Mean	SD
Frequently checks on mission accomplishment rather than on each step of its execution (29).	Bn CO	5.5	1.1	5.2	1.2
	Co CO	5.3	1.2	4.8	1.2
Frequently seeks information from subordinate officers about the task or mission (33).	Bn CO	3.8	1.5	4.5	1.3
	Co CO	3.9	1.5	4.0	1.3
Social-Emotional Positive (SE+)					
Is often primarily concerned with the men's safety and welfare (2).	Bn CO	5.1	1.3	4.4	1.2
	Co CO	5.1	1.3	4.6	1.3
Frequently maintains informal relationships with subordinates (4).	Bn CO	4.0	1.5	3.0	1.3
	Co CO	3.9	1.5	3.8	1.5
Frequently helps subordinate officers in personal matters (8).	Bn CO	5.0	1.1	4.9	1.1
	Co CO	5.4	1.1	5.4	.9
Often appeals for good performance (12).	Bn CO	4.2	1.5	4.7	1.3
	Co CO	4.4	1.6	4.7	1.3
Often agrees with subordinate officers' ideas and suggestions (15).	Bn CO	4.6	1.1	4.6	.6
	Co CO	4.5	1.1	4.5	.7
Is often accessible to subordinates (16).	Bn CO	5.3	1.5	5.5	.6
	Co CO	5.4	1.4	5.9	.3
Often agrees with fellow officers' ideas and suggestions (18).	Bn CO	4.4	1.0	4.3	.9
	Co CO	4.4	1.1	4.3	.8
Often displays a sense of humor (21).	Bn CO	5.3	1.1	5.2	.6
	Co CO	5.2	1.2	5.3	.5
Often rewards and praises subordinates for their accomplishments (23).	Bn CO	5.7	1.1	5.6	.6
	Co CO	5.6	1.1	5.8	.5
Often rewards and praises subordinates for their efforts (24).	Bn CO	5.6	1.1	5.3	.7
	Co CO	5.5	1.1	5.5	.6
Often explains or gives reasons why things should be done (27).	Bn CO	4.4	1.6	4.6	1.0
	Co CO	4.5	1.7	4.9	1.1
Often agrees with senior officers' ideas and suggestions (36).	Bn CO	4.0	1.2	3.9	1.1
	Co CO	4.0	1.2	4.0	1.1
Social-Emotional Negative (SE−)					
Often stresses formality in his relationships with subordinates (1).	Bn CO	3.5	1.4	4.5	1.2
	Co CO	3.5	1.4	3.8	1.5
Often places the mission ahead of men's safety and welfare (3).	Bn CO	4.3	1.7	4.8	1.0
	Co CO	4.1	1.7	4.6	1.1

(Continued)

Leader Actions (Within Functional Areas)[a]	Rated Level of Command	Command Experience			
		Battalion Commander		Company Commander	
		Mean	SD	Mean	SD
Is often antagonistic and aggressive toward subordinates (7).	Bn CO	1.7	.8	1.8	1.0
	Co CO	1.7	.8	1.7	1.0
Often reprimands subordinates for lack of effort (9).	Bn CO	4.1	1.3	4.1	1.4
	Co CO	4.3	1.5	4.4	1.4
Frequently appears irritated (10).	Bn CO	1.9	1.2	2.1	1.2
	Co CO	2.0	1.2	2.2	1.3
Often warns subordinates against poor performance (14).	Bn CO	3.2	1.6	3.1	1.5
	Co CO	3.7	1.6	3.3	1.5
Often disagrees with fellow officers' ideas and suggestions (25).	Bn CO	2.8	1.3	3.0	1.0
	Co CO	2.8	1.3	3.1	.9
Often reprimands subordinates for idadequate accomplishment (30).	Bn CO	4.2	1.3	4.1	1.3
	Co CO	4.5	1.3	4.4	1.3
Frequently disagrees with subordinate officers' ideas and suggestions (32).	Bn CO	2.9	1.0	3.2	1.0
	Co CO	3.0	.9	3.2	1.0
Often disagrees with senior officers' ideas and suggestions (34).	Bn CO	2.4	1.0	2.6	1.1
	Co CO	2.4	1.0	2.6	1.1

[a]Numbers in parentheses are questionnaire item numbers.

Unclassified

Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY *(Corporate author)* Human Resources Research Organization (HumRRO) 300 North Washington Street Alexandria, Virginia 22314	2a. REPORT SECURITY CLASSIFICATION Unclassified 2b. GROUP

3. REPORT TITLE

THE EFFECTS OF COMMAND POSITION UPON EVALUATIONS OF LEADER BEHAVIOR

4. DESCRIPTIVE NOTES *(Type of report and inclusive dates)*

Technical Report

5. AUTHOR(S) *(First name, middle initial, last name)*

L. L. Lackey, Joseph A. Olmstead, and Harold E. Christensen

6. REPORT DATE November 1972	7a. TOTAL NO. OF PAGES 27	7b. NO. OF REFS 9
8a. CONTRACT OR GRANT NO. DAHC 19-73-C-0004 b. PROJECT NO. c. 2Q061102B74B d.	9a. ORIGINATOR'S REPORT NUMBER(S) HumRRO TR 72-32 9b. OTHER REPORT NO.(S) *(Any other numbers that may be assigned this report)*	

10. DISTRIBUTION STATEMENT

Approved for public release; distribution unlimited.

11. SUPPLEMENTARY NOTES Research performed at HumRRO Division No. 4, Fort Benning, Georgia	12. SPONSORING MILITARY ACTIVITY Office, Chief of Research and Development Department of the Army Washington, D.C. 20310

13. ABSTRACT

The study was designed to determine the effects of command position—battalion commander and company commander—upon evaluations of the desirability of certain leader actions. Twenty-two U.S. Army officers who had served as battalion commanders (Group I) and 22 who had served as company commanders (Group II) rated 36 leader actions on their desirability for battalion and for company commanders. Battalion commanders do not differentiate between the two command levels on the desirability of the leader actions. Company commanders differentiate about actions concerned with the centralization of authority and responsibility, and consider these to be more desirable for both command levels. Both groups rated positive motivation and emotional support as desirable and punitive or negatively motivating actions as slightly undesirable. The implications of the differences in expectations about leader behavior on effective organizational functioning, leadership doctrine, and training are discussed.

DD FORM 1 NOV 68 1473

Unclassified

Security Classification

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Battalion commander						
Company commander						
*Leadership						
Leadership evaluation						
Leadership training						
Military command						
*Motivation						

DISTRIBUTION LIST

2 DIR OASD MANPOWER (PPBGR)
1 CHF DEF NUC AGCY ATTN DOC LIB AR
1 DIR WSEG WASH., D.C. 20305
1 DIR OASD MANPOWER & RESERVE AFFAIRS
1 OFC OF THE ASST SEC OF DEF (H&E) (OAA) ATTN M BIEGEL
2 COMDR FLD CMD DEF NUC AGCY SANDIA BASE ATTN FCTG7
2 NASA SCI & TECH INFO FACILITY COLLEGE PARK MD
1 CINC US EUROPEAN COMD ATTN SUPPORT PLANS BR J3
1 CINC USA PACIFIC ATTN G3 CDC APO SAN FRAN 96610
1 CG US ARMY JAPAN APO 96343 SAN FRAN ATTN G3
10 CG USA FORCES SOUTHERN COMD ATTN SCARCO CZ
2 CG US ARMY EUROPE APO 09403 NY ATTN OPNS DIV
1 CC ARMY TRANS RES COMD FT EUSTIS ATTN TECH LIB
1 CG USA AD COMD ENT AFB ATTN AGOPA COLC
1 CG 1ST ARMY ATTN DCSOT FT MEADE MD
1 CG 3RD ARMY ATTN DCSOT FT MCPHERSON
1 CG SIXTH ARMY PRES OF SAN FRAN ATTN AMOPS-T2
1 CG EUSA ATTN AG-AC APO 96301 SAN FRAN
1 CLIN PSYCHOL SERV DEPT OF NEUROPSYCHIAT WALTER REED GEN HOSP
1 DIR HEL APG MD
1 CG USA CDC EXPERIMENTATION COMD FT ORD
2 ENGNR PSYCHOL LAB PIONEERING RES DIV ARMY NATICK LABS NATICK MASS
1 TECH LIB ARMY NATICK LABS NATICK MASS
1 INST OF LAND CBT ATTN TECH LIB FT BELVOIR VA
1 REDSTONE SCIENTIFIC INFC CTR US ARMY MSL COMD ATTN CHF DOC SEC ALA
1 CO FT HUACHUCA SPT COMD USA ATTN TECH REF LIB
1 SIXTH USA LIB DEPOT BLDG M 13 14 PRES OF SAN FRAN
1 PLNS OFCR PSYCH HDQTRES USACDCEC FT ORD
5 CG FT ORD ATTN G3 TNG DIV
2 DIR WRAIR WALTER REED ARMY MED CTR ATTN NEUROPSYCHIAT DIV
1 CO HQ ARMY ENLISTED EVAL CTR FT BENJ HARRISON
1 TECH LIB BOX 22 USACDC EXPERIMENTATION COMD FT ORD
1 HUMAN FACTORS TEST DIV (ACH7) USAF HOSP EGLIN AFB
1 CO FRANKFORD ARSNL ATTN SMUFA-N6403/272-4 PA
3 6TH RGN USAKADCOM FT BAKER
1 4TH ARMY MSL COMD AIR TRANSPORTABLE SAN FRAN
1 DIR ARMY BD FOR AVN ACCIDENT RSCH FTRUCKER
2 CO PICATINNY ARSNL DOVER N J ATTN SUMPA VCI
1 LIB DEF SUPPLY AGCY CAMERON STA VA
2 CO USA CDC AG AGCY FT BENJ HARRISON IND
1 REF M MS IS NASA ALA
1 CO USA CBT DEVEL COMD TRANS AGCY FT EUSTIS
1 CO ARMY CDC INF AGY FT BENNING
1 CO ARMY CDC ARMOR AGY FT KNOX
8 USA CDC SPEC WARFARE AGENCY FT BRAGG
1 CO US ARMY CDC AVN AGCY FT RUCKER
3 CO USA TNG CTR (FA) ATTN AAPSITC-TT FT SILL
1 CG USA TNG CTR & FT LEONARD WOOD ATTN AOFS G3
1 CG USA INF CTR ATTN AJIGT-T FT BENNING
1 CG USA TNG CTR INF ATTN AOFS G3 FT DIX
1 CG USA TNG CTR ATTN AOFS G3 FT JACKSON
1 CG USA TNG CTR INF ATTN AOFS G3 FT LEWIS
1 CG USA TNG CTR INF & FT ORD ATTN AOFS G3
49 CG USA TNG CTR INF ATTN AOFS G3 FT POLK
5 CO USA MED TNG CTR ATTN DIR OF TNG FT SAM HOUSTON
20 CG USA AD CTR ATTN G3 FT BLISS
1 CG USA TNG CTR INF ATTN AOFS G3 FT CAMPBELL
3 LIB ARMY WAR COLL CARLISLE BKS
1 COMDT COMD & GEN STAFF CC FT LEAVENWORTH ATTN ARCHIEVES
1 DIR OF MILIT PSYCHOL & LDRSHP US MILIT ACAD WEST POINT
1 US MILIT ACAD WEST POINT ATTN LIB
1 COMDT ARMY AVN SCH ATTN DIR OF INSTR FT RUCKER
2 COMDT ARMY SECUR AGY TNG CTR & SCH FT DEVENS ATTN LIB
1 COMDT INDSTR COLL OF THE ARMED FORCES FT MCNAIR
2 COMDT NATL WAR COLL FT LESLEY J MCNAIR ATTN CLASSF RECORDS BR LIB
1 STIMSON LIB MED FLD SERV SCH BROOKE ARMY MED CTR FT SAM HOUSTON
3 COMDT THE ARMOR SCH ATTN DOI FT KNOX
1 COMDT ARMY ARMOR SCH FT KNOX ATTN WEAPONS DEPT
1 LIB USA ARMOR SCH FT KNOX
1 COMDT USA CHAPLAIN SCH ATTN DOI FT HAMILTON
1 COMDT ARMY CHEM CORPS SCH FT MCCLELLAN ATTN EDUC ADV
1 COMDT USA FIN SCH ATTN CHF DOC DEV LIT PLN DIV DODI IND
1 USA FINANCE SCH FT BENJ HARRISON ATTN EDUC ADV
4 COMDT ADJ GEN SCH FT BENJ HARRISON ATTN EDUC ADV
1 COMDT USAIS ATTN EDUC ADV FT BENNING
1 COMDT USAIS ATTN AJIIS-C-EPRD FT BENNING
1 LIB ARMY WM SCH FT LEE
1 COMDT ARMY TRANS SCH FT EUSTIS ATTN EDUC ADV
1 COMDT USA MIL POLICE SCH ATTN PLNS &PROG DODI FT GORDON
2 COMDT US ARMY SOUTHEASTERN SIG SCH ATTN EDUC ADV FT GORDON
1 COMDT USA AD SCH ATTN DCI FT BLISS
1 CO USA ORD CTR & SCH CFC OF OPS ATTN AHBV-O APO NY
5 ASST COMDT ARMY AIR DEF SCH FT BLISS ATTN CLASSF TECH LIB
3 CG USA FLD ARTY CTR & FT SILL ATTN AVN OFCR
1 COMDT DEF INTELL SCH ATTN SIGAS DEPT
1 COMDT ARMED FORCES STAFF COLL NORFOLK
1 COMDT USA SIG CTR & SCH ATTN DOI FT MONMOUTH
1 COMDT JUDGE ADVOCATE GENERALS SCH U OF VA
1 DPTY COMDT USA AVN SCH ELEMENT GA
1 DPTY ASST COMDT USA AVN SCH ELEMENT GA
1 USA AVN SCH ELEMENT CFC OF DIR OF INSTR ATTN EDUC ADV GA
1 EDUC CONSLT ARMY MILIT POLICE SCH FT GORDON
6 COMDT USA ENGR SCH ATTN EDUC ADV AMABES-EA FT BELVOIR
1 COMDT ARMY AVN SCH FT RUCKER ATTN EDUC ADV

1 DIR OF INSTR US MIL ACAD WEST POINT NY
1 USA INST FOR MIL ASSIST ATTN LIB BLDG 1ST2809 FT BRAGG
4 USA INST FOR MIL ASSIST ATTN COUNTERINSURGENCY DEPT FT BRAGG
1 COMDT OFF MGT SCH FT BELVOIR
2 COMDT USA MSL & MUN CTR & SCH ATTN CHF OFC OF OPS REDSTONE ARSNL
2 COMDT US WAC SCH US WAC CTR ATTN AJMCT FT MCCLELLAN
2 HQ ABERDEEN PG ATTN TECH LIB
1 CO USA INTELL CTR & SCH ATTN DIR OF ACADEMIC OPS FT HUACHUCA
1 CO USA INTELL CTR & SCH ATTN DIR OF DOC & LIT FT HUACHUCA
1 COMDT USA CGSC OFC OF CHF OF RESIDENT INSTR FT LEAVENWORTH
1 COMDT USA CA SCH ATTN OFC OF DOCTRINE DEVEL LIT & PLNS FT BRAGG
1 COMDT USA CA SCH ATTN DOI FT BRAGG
1 COMDT USA CA SCH ATTN EDUC ADV FT BRAGG
1 COMDT USA CA SCH ATTN LIB FT BRAGG
1 COMDT USA SCH & TNG CTR ATTN AOFS G3 TNG DIV FT MCCLELLAN
1 COMDT USA SCH & TNG CTR ATTN AOFS G3 PLNS & OPS DIV FT MCCLELLAN
10 COMDT USA INST FOR MIL ASSIST ATTN DOI FT BRAGG
1 LIBN USAIS FT BENNING
8 COMDT USA FLD ARTY SCH ATTN DOI FT SILL
1 COMDT USA ARTY SCH ATTN EDUC SERVICES DIV FT SILL
1 COMDT USA ARTY SCH ATTN EDUC ADV FT SILL
1 COMDT USA TRANS SCH ATTN DIR OF DOC & LIT FT EUSTIS
1 COMDT USA TRANS SCH ATTN LIB FT EUSTIS
1 USA INST FOR MIL ASST ATTN EDUC ADV FT BRAGG
1 COMDT USA ARTY SCH ATTN LIB FT SILL
1 CG USA SCH & TNG CTR ATTN AOFS G3 FT GORDON
1 DIR OF GRAD STUD & RSCH ATTN AEHAV SCI REP USACDCSC
1 COMDT USA AD SCH ATTN AKMAAS-GL-EA FT BLISS
2 DIR BRGD & AN OPNS DEPT USAIS FT BENNING
1 DIR COMM ELEC USAIS FT BENNING
1 DIR ABN-AIR MOBILITY DEPT USAIS FT BENNING
2 DIR COMPANY TACTICS DEPT USAIS FT BENNING
1 CG USA SIG CTR & SCH ATTN ATSSC-OP-CO3 FT MONMOUTH
1 CG USA SIG CTR & SCH ATTN ATSSC-EA FT MONMOUTH
1 SECY OF ARMY, PENTAGON
1 DCS-PERS DA ATTN CHF C&S DIV
1 DIR OF PERS STUDIES & RSCH ODCSPER DA WASH DC
2 ACSFOR DA ATTN CHF ENG DIV WASH DC
1 CHF OF ENGNRS DA ATTN ENGTE-T
1 HQ ARMY MAT COMD R&D ENGTE ATTN AMCRD-MC
2 CG ARMY MED R&D COMD ATTN AEHAV SCI RES BR
1 US ARMY BEHAVIOR & SYS RSCH LAB ATTNCRD-AR ARL VA
1 OPO PERS MGT DEV OFC ATTN MOS SEC (NEW EQUIP) OPOMO
1 PROVOST MARSHAL GEN DA
1 OFC RESERVE COMPON DA
2 CG USA SEC AGCY ARL HALL STA ATTN AC OF S G1 VA
12 ADMIN DOC ATTN: TCA (HEALY) CAMERON STA ALEX., VA. 22314
1 CO US ARMY MED RES LAB FT KNOX
1 CHF OF R&D DA ATTN CHF TECH & INDSTR LIAISON OFC
1 CO USA CDC MED SERV AGCY FT SAM HOUSTON
2 CG ARMY MED R&D COMD ATTN MEDDH-SE
1 USA BEHAVIOR & SYS RSCH LAB ATTN CRD-AIC ARL VA
1 CANEEK MGT BR ATTN R CETTERNE CAMERON STA ALEX VA
1 USA LIB DIV-TAGO ATTN ASDIRS
1 PRES ARMY AKMOR MD FT KNOX
1 PRES ARMY MAINE RD FT KNOX
2 PRES ARMY ARTY BD FT SILL
1 CG CONARC ATTN CDL E M MEDAK ATIT-SA FT MONROE
15 CG CONARC ATTN ATIT-STM FT MONROE
2 CG CONARC ATTN LIB FT MONROE
1 CO ARMY CHF CEVEL COMD MILIT POLICE AGY FT GORDON
1 USA ARCTIC TEST CTR CHF INSTR & TEST METH DIV SEATTLE
1 CHF USA AD PRO FT BLISS
1 CHF USA ARMOR PRO FT KNOX
1 CHF USA AVN PRO FT RUCKER
1 CHF USA INF PRO FT BENNING
1 CHF USA ENG CTR PRO FT MONTEREY
2 CG 4TH ARMORED DIV ATTN GCSOP APO NY 09326
4 CO 2D ARMORED CAV REGT APO 09649 NY
1 CO 14TH ARMORED CAV REGT ATTN AVN OPER APO 09146 NY
1 1ST ARMORED DIV HQ & HQ CO FT HOOD ATTN AC OF S G2
5 CO 1ST BN 63RD ARMOR 1ST INF DIV ATTN S3 FT RILEY
4 CO 1ST BN 64TH ARMOR 3RD INF DIV ATTN S3 APO NY 09031
5 CO 2ND BN 64TH ARMOR 8TH INF DIV ATTN S3 APO NY 09034
1 CO 5TH BN 33D ARMOR ATTN S3 FT KNOX
1 CO 1ST BN 37TH ARMOR 4TH ARMORED DIV ATTN S3 APO NY 09066
1 CALIF NG 40TH ARMORED DIV LOS ANGELES ATTN AC OF SG3
1 55TH COMD HQ DIV ARMY NG JACKSONVILLE FLA
1 CG HQ 27TH ARMORED DIV NY AIR NG SYRACUSE
1 TEXAS NG 49TH ARMORED DIV DALLAS
3 CG ARMY ARMOR CTR FT KNOX ATTN G3 AIMHGT
1 CO 3RD INF DIV ATTN AOFS G3 APO NY 09036
1 CG 7TH INF DIV ATT AOFS G2 APO SAN FRAN 96207
1 CG 8TH INF DIV ATTN AOFS G2 APO NY 09111
3 CG 4TH INF DIV (MECH) & FT CARSON ATTN AOFS G3
1 DA HQS FT CARSON & HQS 4TH INF DIV (MECH) ATT MAJ HARRIS
3 CG 82ND ABN INF DIV ATTN AOFS G3 FT BRAGG
1 CG XVIII ABN CORPS ATTN AOFS G3 FT BRAGG
1 CO 197TH INF BRGD FT BENNING ATTN S3
1 CO 1ST BN (REINF) ATTN S3 FT MYER
1 CO HDQTRS 2ND BN 6TH US INF REGT ATTN S3 APO NY 09742
1 CO 3RD BN 6TH INF REGT ATTN S3 APO NY 09742
1 CO 171ST INF BDE ATTN S3 APO SEATTLE 98731
1 CO 1ST BN 39TH INF 8TH INF DIV ATTN S3 APO NY 09034

1 CO 2ND BN 15TH INF 3RD INF DIV ATTN S3 APO NY 09026
5 CG 1ST INF DIV ATTN ACOFS G3 FT RILEY
1 CO 1ST BN (MECH) 52ND INF 198TH INF BDE ATTN S3 APO SAN FRAN 96219
1 CO 4TH BN (MECH) 54TH INF ATTN S3 FT KNOX
1 CO USA PARTIC GP USA TNG DEVICE CTR FLA
1 DA OFC OF ASST CHF OF STAFF FOR COMM-ELCT ATTN CETS-6 WASH
1 CHF MED RES PROJ ARMY HOSP US MILIT ACAD WEST POINT
2 DA USA ADV GP (ARNGUS) RALEIGH NC
1 USA RECRUITING COMD HAMPTON VA
1 DIR ARMY LIB PENTAGON
1 CHF OF MILIT HIST DA ATTN GEN REF BR
1 CO USA 10TH SPEC FORCES GP FT DEVENS
1 CO 24TH ARTY GP (AD) ATTN S3 RI
1 CG 31ST ARTY BDE AD ATTN S3 PA
1 CO 49TH ARTY GP AD ATTN S3 FT LAWTON
2 HQS 4TH BN 59TH ARTY REGT ATTN S3 NORFOLK
1 CO 28TH ARTY GP AD ATTN S3 SELFRIDGE AFB
1 HQS 45TH ARTY BDE AD ATTN S3 ARL HTS ILL
1 CO 35TH ARTY BDE AD ATTN S3 FT MEADE MD
1 CG 101ST ABN DIV (AIRMOBILE) ATTN ACOFS G3 APO SAN FRAN 96383
1 CG 1ST CAV (AIRMOBILE) ATTN ACOFS G3 APO SAN FRAN 96383
1 US ARMY GEN EQUIP ATTN TECH LIB FT LEE
1 US ARMY TROPIC TEST CTR PO DRAWER 942 ATTN BEHAV SCIEN CZ
1 CO USAFAAC ATTN S3 FT SILL
10 CG III CORPS & FT HOOD ATTN G3 SEC FT HOOD
30 CO 1ST ARMORED DIV ATTN G3 SEC FT HOOD
30 CG 2D ARMORED DIV ATTN G3 SEC FT HOOD
25 CO 13TH SUPT BDE ATTN S3 SEC FT HOOD
1 CG USAFAC & FT SILL ATTN AKPSIGT-INTN
20 CG III CORPS ARTY ATTN G3 SEC FT SILL
15 CO 1ST AIT BDE ATTN G3 SEC FT BLISS
8 CG USATCI & FT POLK ATTN AKPPC-DCOT
1 RSCH CONTRACTS & GRANTS BR ARO
1 RESD ARO OFC CHF OF R&D WASH DC
1 CHF OF R&D DA ATTN SCI INFO BR RSCH SPT DIV WASH DC
1 CO HQS BN USAFAC & FT SILL ATTN S3
4 CO III CORPS ARTY ATTN S3 FORT SILL
1 CO USRAH ATTN S3 FT SILL
1 CG USAFACFS ATTN AKPSIAC-AS FT SILL
1 EACH PROF OF MILITARY SCI USA ROTC
1 CINC US ATLANTIC FLT CODE 312A USN BASE NORFOLK
1 CINC PACIFIC SCIEN ADV GP (J30S) BOX 13 FPO 96610
1 CDR TNG COMMAND US PACIFIC FLT SAN DIEGO
1 HEAD CLIN PSYCHOL SECT PROFESNL DIV BUR OF MED & SURG DN
5 TECH LIB PERS LIB BUR OF NAV PERS ARL ANNEX
3 DIR PERS RES DIV BUR OF NAV PERS
1 TECH LIB BUR OF SHIPS CODE 210L NAVY DEPT
1 ENGNR PSYCHOL BR ONR CODE 455 ATTN ASST HEAD WASH DC
3 CO & DIR NAV TNG DEVICE CTR ORLANDO ATTN TECH LIB
1 CO FLT ANTI-AIR WARFARE TNG SAN DIEGO
1 CO NUCLEAR WPNS TNG CTR PACIFIC US NAV AIR STA SAN DIEGO
2 US FLT AAW TNG CTR DAM NECK VA
2 CO FLT TNG CTR NAV BASE NEWPORT
2 CO US FLT TNG CTR NORFOLK
1 CO FLEET TNG CTR US NAV STA SAN DIEGO
1 CLIN PSYCHOL MENTAL HYGIENE UNIT US NAV ACAD ANNAPOLIS
1 PRES NAV WAR COLL NEWPORT ATTN MAHAN LIB
2 CO & DIR US ATLANTIC FLT ASW TACTICAL NORFOLK
2 CO FLT SONAR SCH KEY WEST
1 CO FLT ANTI-SUB WARFARE SCH SAN DIEGO
1 CHF OF NAVL RSCH PERS & TNG BR (CODE 458) ARL VA
1 CHF OF NAV RES ATTN HEAD GP PSYCHOL BR CODE 452
1 DIR US NAV RES LAB ATTN CODE 5120
1 DIR NAVAL RSCH LAB ATTN LIB CODE 2029 WASH DC
1 CHF OF NAV AIR TNG TNG RES DEPT NAV AIR STA PENSACOLA
1 CO MED FLD RES LAB CAMP LEJEUNE
1 CDR NAV MSL CTR POINT MUGU CALIF ATTN TECH LIB CODE 3022
1 DIR AEROSPACE CREW EQUIP LAB NAV AIR ENGNR CTR PA
2 OIC NAV PERS RES ACTVY SAN DIEGO
1 NAV NEUROPSYCHIAT RES UNIT SAN DIEGO
1 DIR PERS RES LAB NAV PERS PROGRAM SUPPORT ACTIVITY WASH NAV YD
1 NAV TNG PERS CTR NAV STA NAV YD ANNEX CODE 83 ATTN LIB WASH
3 COMDT MARINE CORPS HQ MARINE CORPS ATTN CODE AO-1B
1 HQ MARINE CORPS ATTN Ax
1 DIR MARINE CORPS EDUC CTR MARINE CORPS SCH QUANTICO
1 DIR MARINE CORPS INST ATTN EVAL UNIT
1 US MARINE CORPS HQS HIST REF LIB ATTN MRS JADOT
1 CHF OF NAV OPNS OP-01PL
1 CHF OF NAV OPNS OP-07TL
2 COMDT HQS 8TH NAV DIST ATTN EDUC ADV NEW ORLEANS
1 CHF OF NAV AIR TECH TNG NAV AIR STA MEMPHIS
1 DIR OPS EVAL GRP OFF OF CHF OF NAV OPS OPO3EG
2 COMDT PTP COAST GUARD HQ
1 CHF OFCR PERS RES & REVIEW BR COAST GUARD HQ
1 CO US COAST GUARD TNG CTR GOVERNORS ISLAND NY
1 CO US COAST GUARD TNG CTR CAPE MAY NJ
1 CO US COAST GUARD TNG CTR & SUP CTR ALAMEDA CALIF
1 CO US COAST GUARD INST OKLA CITY OKLA
1 CO US COAST GUARD RES TNG CTR YORKTOWN VA
1 SUPT US COAST GUARD ACAD NEW LONDON CONN
1 AIR TNG COMD/XPT RANDOLPH AFB
1 TECH DIR TECH TNG DIV(HRD) AFHRL LOWRY AFB COLO
1 CHF SCI DIV ORCTE SCI & TECH DCS R&D HQ AIR FORCE AFRSTA
1 FAA ORCTE OF PLNS & OPS HQ USAF WASH DC
1 CHF OF PERS RES BR ORCTE OF CIVILIAN PERS DCS-PERS HQ AIR FORCE
1 CHF ANAL DIV (AFPOPL (R) DIR OF PERSONNEL PLANNING HQS USAF
2 CDR ELEC SYS DIV LG HANSCOM FLD ATTN ESMDA/STOP 36 MASS
1 AFHRL/TT ATTN CAPT W S SELLMAN LOWRY AFB
1 HQ SAMSO (SMSIR) AF UNIT POST OFC LA AFS CALIF
2 MILIT TNG CTR OPE LACKLAND AFB
2 AFHRL (HRT) WRIGHT-PATTERSON AFB
1 AMD AMRH BROOKS AFB TEXAS
1 HQS ATC DCS/TECH TNG (ATTHS) RANDOLPH AFB
1 USAFA DIR OF THE LIB USAF ACAD COLO
1 6570TH PERS RES LAB PRA-4 AEROSPACE MED DIV LACKLAND AFB

2 CO HUMAN RESOURCES LAB BROOKS AFB
1 COMDT USAF SPEC OP SCH (TAC) EGLIN AFB
1 AFHRL (FT) WILLIAMS AFB ARIZ
1 PSYCHOBIOLOGY PROG NATL SCI FOUND
1 DIR NATL SECUR AGY FT GEO G MEADE ATTN TDL
1 DIR NATL SECUR AGY FT GEO G MEADE ATTN DIR OF TNG
3 CIA ATTN CRS/ADD STANDARD DIST
1 SYS EVAL DIV RES DIRECTORATE DOD-OCD PENTAGON
1 DEPT OF STATE BUR OF INTEL & RES EXTERNAL RES STAFF
1 SCI INFO EXCH WASHINGTON
2 CHF MGT & GEN TNG DIV TR 200 FAA WASH DC
1 BUR OF RES & ENGR US POST OFC DEPT ATTN CHF HUMAN FACTORS BR
1 EDUC MEDIA BR OE HEW ATTN T C CLEMENS
1 OFC OF INTERNATL TNG PLANNING & EVAL BR AID WASH DC
1 DEPT OF TRANS FAA ACQ SEC HQ 610A WASH DC
2 ERIC DE WASH DC
1 SYS DEVEL CORP SANTA MONICA ATTN LIB
2 DUNLAP & ASSOC INC DARIEN ATTN LIB
2 RAC ATTN LIB MCLEAN VA
1 RAND CORP WASHINGTON ATTN LIB
1 GP EFFECTIVENESS RSCH LAB U OF ILL DEPT OF PSYCHOL
1 COLUMBIA U ELEC RES LABS ATTN TECH EDITOR
1 MITRE CORP BEDFORD MASS ATTN LIB
2 LEARNING R&D CTR U OF PITTS ATTN DIR
1 WESTERN ELECTRIC CO INC NY
1 HUMAN SCI RES INC MCLEAN VA
2 TECH INFO CTR ENGNR DATA SERV N AMER AVN INC COLUMBUS O
1 CHRYSLER CORP MSL DIV DETROIT ATTN TECH INFO CTR
1 RAYTHEON SERV CO ATTN LIBN BURLINGTON MASS
1 GEN DYNAMICS POMONA DIV ATTN LIB DIV CALIF
1 MGR BIOTECHNOLOGY AEROSPACE SYS DIV MS 8H-25 BOEING CO SEATTLE
1 IDA RSCH & ENG SUPT DIV ARL VA
1 SCI & TECH DIV IDA ARL VA
1 HUGHES AIRCRAFT COMPANY CULVER CITY CALIF
1 DIR CTR FOR RES ON LEARNING & TEACHING U OF MICH
1 R M STOGDILL OHIO STATE UNIV
1 EDITOR TNG RES ABSTR AMER SOC OF TNG DIRS U OF TENN
1 U OF CHICAGO DEPT OF SOC
1 DIR CTR FOR RSCH IN SOCIAL SYS KENSINGTON MD
3 CANADIAN JOINT STAFF OFC OF DEF RES MEMBER WASHINGTON
3 CANADIAN ARMY STAFF WASHINGTON ATTN GS02 TNG
2 CANADIAN LIAISON OFCR ARMY ARMOR BD FT KNOX
2 OFC OF ARMED FORCES ATTACHE ROYAL SWEDISH EMBSY DC
3 AUSTRALIAN NAV ATTACHE EMBSY OF AUSTRALIA WASH DC
1 OFC OF AIR ATTACHE AUSTRALIAN EMBSY ATTN: T.A. NAVGN WASH, D.C.
2 AUSTRALIAN ARMY ATTACHE EMBSY OF AUSTRALIA ATTN TECH CLK
1 DR B T DODD LRNING SYS LTD SURREY ENGLAND
1 MENNINGER FOUNDATION TOPEKA
1 AMER INSTS FOR RSCH SILVER SPRING
1 AMER INSTS FOR RSCH ATTN LIBN PA
1 DIR PRIMATE LAB UNIV OF WIS MADISON
1 DR E GINZBERG COLUMBIA UNIV SCH OF BUS
1 EDUC & TNG CONSLT CO LA CALIF
1 DR GEORGE T HAUTY CHMN DEPT OF PSYCHOL U OF DEL
1 GEN ELECTRIC CO SANTA BARBARA ATTN LIB
1 VITRO LABS SILVER SPRING MD ATTN LIBN
1 HEAD DEPT OF PSYCHOL UNIV OF SC COLUMBIA
1 TVA PERS STAFF OFCR KNOXVILLE TENN
1 U OF GEORGIA DEPT OF PSYCHOL
1 U OF UTAH DEPT OF PSYCHOL
1 GE CO WASH D C
1 AMER INST FOR RSCH ATTN LIB PALO ALTO CALIF
1 COLL OF ARTS & SCI U OF MIAMI ATTN L L MCQUITTY
1 ROWLAND & CO HADDONFIELD NJ ATTN PRES
1 OHIO STATE U SCH OF AVN
1 AIRCRAFT ARMAMENTS INC COCKEYSVILLE MD
1 DR J B CULLEN DEPT OF SOC & ANTHROP UNIV OF RI
2 OREGON STATE U DEPT OF MILIT SCI ATTN ADJ
1 AMER PSYCHOL ASSOC WASHINGTON ATTN PSYCHOL ABSTR
1 NO ILL U HEAD DEPT OF PSYCHOL
1 GEORGIA INST OF TECH DIR SCH OF PSYCHOL
1 LIFE SCI INC HURST TEXAS ATTN W G MATHENY
1 AMER BEHAV SCI CALIF
2 DIR INSTR RESOURCES STATE COLL ST CLOUD MINN
1 COLL OF WM & MARY SCH OF EDUC
1 SO ILLINOIS U DEPT OF PSYCHOL
2 ASSOC DIR CDC TNG PROG ATLANTA GA
1 WASH MILITARY SYS TECH LIB DIV BETHESDA MD
1 NORTHWESTERN U DEPT OF INDSTR ENGNR
1 HONEYWELL ORD STA MAIL STA 806 MINN
1 DR L TWYFORD NY STATE EDUC DEPT ABSTRACT EDITOR AVCR
1 AEROSPACE SAFETY DIV U OF SOUTHERN CALIF LA
1 MR BRANDON R SMITH RES ASSCC U OF MINN
1 DR V ZACHERT RT 1 GOOD HOPE GA
1 J P LYDON DIR JR ROTC SAN ANTONIO TEXAS
2 CHRYSLER CORP DEF ENGR ATTN DR H BERMAN DETROIT
1 DR S ROSCOE ASSOC DIR FOR RSCH INST OF AVN U OF ILL
1 DR C HELM DEPT EDUC PSYCH CITY U OF NY
1 GEN H P HARRIS (USA RET)PRES THE CITADEL SC
1 DR H SHOEMAKER DIR TNG RSCH GP NY
1 U OF MINN DEPT OF INDUST EDUC ATTN R E KUHL
1 VOC-TECH EDUC PRCG PLNNG DEV ATTN W STOCK ST PAUL
1 CHF PROCESSING DIV DUKE U LIB
1 U OF CALIF GEN LIB DOCU DEPT
1 FLORIDA STATE U LIB GIFTS & EXCH
1 PSYCHOL LIB HARVARD UNIV CAMBRIDGE
1 U OF ILL LIB SER DEPT
2 U OF KANSAS LIB PERIODICAL DEPT
1 U OF NEBRASKA LIBS ACQ DEPT
1 OHIO STATE U LIBS GIFT & EXCH.DIV
1 PENNA STATE U PATTEE LIB DOCU DESK
1 PURDUE U LIBS PERIODICALS CHECKING FILES
1 STANFORD U LIBS DOCU LIB
1 LIBN U OF TEXAS
1 SYRACUSE U LIB SER DIV

1 SERIALS REC UNIV OF MINN MINNEAPOLIS
1 STATE U OF IOWA LIBS SER ACQ
1 NO CAROLINA STATE COLL CH HILL LIB
2 BOSTON U LIBS ACQ DIV
1 U OF MICH LIBS SER DIV
1 BROWN U LIB
1 COLUMBIA U LIBS DOCU ACQ
1 DIR JOINT U LIBS NASHVILLE
2 LIB GEO WASH UNIV ATTN SPEC COLL DEPT WASH DC
2 LIB OF CONGRESS CHF OF EXCH + GIFT DIV

1 U OF PGH DOCU LIBN
1 CATHOLIC U LIB EDUC & PSYCHOL LIB WASH DC
1 U OF KY MARGARET I KING LIB
1 SO ILL U ATTN LIBN SER DEPT
1 KANSAS STATE U FARRELL LIB
1 BRIGHAM YOUNG U LIB SER SECT
1 U OF LOUISVILLE LIB BELKNAP CAMPUS
1 GEORGETOWN U LIB SER DEPT WASH DC
1 LIBS COLO STATE U ATTN DOC LIBN FT COLLINS

ERIC Clearinghouse
JAN 9 1973
on Adult Education

HUMAN RESOURCES RESEARCH ORGANIZATION

300 North Washington Street • Alexandria, Virginia 22314

President	Dr. Meredith P. Crawford
Executive Vice President	Dr. William A. McClelland
Director for Business Affairs and Treasurer	Mr. Charles W. Smith
Director for Operations	Mr. Arnold A. Heyl
Director for Program Development	Dr. Robert G. Smith, Jr.
Director for Research Design and Reporting	Dr. Eugene A. Cogan

RESEARCH DIVISIONS

HumRRO Division No. 1 (System Operations) 300 North Washington Street Alexandria, Virginia 22314	Dr. J. Daniel Lyons Director
HumRRO Division No. 2 Fort Knox, Kentucky 40121	Dr. Donald F. Haggard Director
HumRRO Division No. 3 Post Office Box 5787 Presidio of Monterey, California 93940	Dr. Howard H. McFann Director
HumRRO Division No. 4 Post Office Box 2086 Fort Benning, Georgia 31905	Dr. T.O. Jacobs Director
HumRRO Division No. 5 Post Office Box 6057 Fort Bliss, Texas 79916	Dr. Albert L. Kubala Director
HumRRO Division No. 6 (Aviation) Post Office Box 428 Fort Rucker, Alabama 36360	Dr. Wallace W. Prophet Director
HumRRO Division No. 7 (Social Science) 300 North Washington Street Alexandria, Virginia 22314	Dr. Arthur J. Hoehn Director